

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments with respect to claims amended have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 1-2, 12, 14 and 16** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kojima et al. (US Publication Number 2005/0195424 A1) in view of Suzuki (US Patent Number 5,134,667, further in view of Oyama (JP 2001-297070) and in further in view of Hirai et al. (US Publication Number 2004/0196471 A1).

Regarding **Claims 1, 14 and 16**, Kojima'424 shows an image processing apparatus comprising: input means for inputting an image signal (**i.e., input circuit. See Figure 1 element 51**); image processing means for subjecting the image signal input from the input means to an image process (**i.e., the input it processed. See Figure 8**); designation means for designating a process condition for the image signal input by the input means (**i.e., a processing mode is set/designated depending on the image. See Paragraphs 99**);

Kojima'424 fails to show an image processing apparatus comprising processes of a color conversion process, a discrimination process, a filter process and a tone process.

Suzuki'667 teaches an image processing apparatus comprising processes of a color conversion process **(i.e., converts color from RGB to YMSK. See Column 6, Lines 10-35)**, a discrimination process **(i.e., area of an image discrimination. See Column 2, Lines 46-50)**, a filter process **(i.e., smoothing low-pass and high filtering. See Column 15, Lines 49-59)** and a tone process **(i.e., tone process with modulation. See Column 1, Lines 42-45 and See Column 10, Line 34)**.

Having the system of Kojima'424 and then given the well-established teaching of the Suzuki'667, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the system of Kojima'424 as taught by the Suzuki'667, since adding additional processes to the system makes it a more effective when processing image data.

The combination of Kojima'424 and Suzuki'667 fails to show each of the processes to be individual from each other and the system to comprise memory means for use in the image process in the image processing means.

Oyama'070 teaches the processes to be individual from each other **(i.e., each process is done by an individual digital signal processor. See Paragraphs 24-26 and See Paragraph 30)** and the system to comprise memory means for use in the image process in the image processing means with processes at ratios determined for each process condition designated by the

designation means **(i.e., memory ROM and RAM are used for each image processing program, each digital signal processing calculates the storing size/ratio. See Paragraphs 9, 24-25, 29 and 37-42).**

Having the system of Kojima'424 and Suzuki'667 and then given the well-established teaching of the Oyama'070, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the system of Kojima'424 and Suzuki'667 as taught by the Oyama'070, since using more than one image processor to work individually improves the image processing by efficient process and image processing can be arrange in parallel and processed as much as possible as suggested in reference Oyama'070 Paragraph 9 and 30.

The combination of Kojima'424, Suzuki'667 and Oyama'070 fails to show control means for effecting a control to allocate a memory capacity , which is usable in the memory means.

Hirai'471 teaches control means for effecting a control to allocate a memory capacity, which is usable in the memory means **(i.e., a handler/controller allocates a memory area to each process and manages the allocated memory. See Paragraphs 41).**

Having the system of Kojima'424, Suzuki'667 and Oyama'070 and then given the well-established teaching of the Hirai'471, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the system of Kojima'424, Suzuki'667 and Oyama'070 as taught by the

Hirai'471, since this improves the system by having an effective use of the memory.

Regarding **Claim 2**, Kojima'424 shows the image processing apparatus wherein the process condition designated by the designation means is one of character/photo mode, a photo mode with a stress on reproducibility of a photo, a character mode with a stress on reproducibility of a character, and a map mode **(i.e., types of mode are character mode, photo mode, character and photo mode and map mode. See Paragraphs 100-102).**

Regarding **Claim 12**, the combination of Kojima'424, Suzuki'667, Oyama'070 and Hirai'471 show an image processing apparatus, wherein in a case where an additional process that is different from the individual processes is newly provided, the control means effects a control to allocate a memory capacity, which is usable in the memory means, to the individual processes and to the additional process in accordance with the process condition designated by the designation means **(i.e., the number of processors can be changed/new. See Paragraphs 3 in reference Oyama'070).**

4. **Claim 3** is rejected under 35 U.S.C. 103(a) as being unpatentable over Kojima et al. (US Publication Number 2005/0195424 A1) in view of Suzuki (US Patent Number 5,134,667, further in view of Oyama (JP 2001-297070), further in view of Hirai et al. (US Publication Number 2004/0196471 A1) and further in view of Hirota et al. (US Patent Number 6,417,932 B1).

Regarding **Claim 3**, the combination of Kojima'424, Suzuki'667, Oyama'070 and Hirai'471 fails to show the image processing apparatus, wherein the process condition designated by the designation means is one of an auto mode in which it is determined whether the input image signal is a color signal or a monochromatic signal, a color mode in which a color image process is executed, and a monochromatic mode in which a monochromatic image process is executed.

Hirota'932 teaches the image processing apparatus, wherein the process condition designated by the designation means is one of an auto mode in which it is determined whether the input image signal is a color signal or a monochromatic signal, a color mode in which a color image process is executed, and a monochromatic mode in which a monochromatic image process is executed **(i.e., the auto color selector verify if the image is a color image or a monochromatic image. See Column 13, Lines 34-38).**

Having the system of Kojima'424, Suzuki'667, Oyama'070 and Hirai'471 and then given the well-established teaching of the Hirota'932, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the system of Kojima'424, Suzuki'667, Oyama'070 and Hirai'471 as taught by the Hirota'932, since knowing if the image to process is color or monochromatic would help to choose the appropriate processing the image needs efficiently.

5. **Claims 5-11, 13, 15, 17-20** rejected under 35 U.S.C. 103(a) as being unpatentable over Kojima et al. (US Publication Number 2005/0195424 A1) in

view of Suzuki (US Patent Number 5,134,667, further in view of Oyama (JP 2001-297070), further in view of Hirai et al. (US Publication Number 2004/0196471 A1) and further in view of Suzuki et al. (US Patent Number 6,473,204 B1).

Regarding **Claims 5, 15 and 17**, the combination of Kojima'424, Suzuki'667, Oyama'070 and Hirai'471 fails to show the image processing apparatus, wherein the control means allocates a processing time to the individual processes at ratios determined for each process condition designated by the designation means.

Susuki'204 teaches a image processing apparatus, wherein the control means allocates a processing time to the individual processes at ratios determined for each process condition designated by the designation means **(i.e., depending on the process mode the processing is varied ((time can be varied))). See Column 27, Lines 64-67 and Column 28, Lines 1-6).**

Having the system of Kojima'424, Suzuki'667, Oyama'070 and Hirai'471 and then given the well-established teaching of the Susuki'204, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the system of Kojima'424, Suzuki'667, Oyama'070 and Hirai'471 as taught by the Susuki'204, since using it will help the system to have a more efficient and faster processing.

Regarding **Claims 6 and 7**, the combination of Kojima'424, Suzuki'667, Oyama'070, Hirai'471 and Susuki'204 shows an image processing apparatus,

wherein in a case where a processing time in the image process is restricted, the control means allocates a memory capacity to the individual processes at ratios for each process condition designated by the designation means (i.e., **depending on the process mode the processing is varied ((the time of processing can be restricted))**). See Column 27, Lines 64-67 and Column 28, Lines 1-6 in reference Suzuki'204).

Regarding **Claims 8 and 18**, the combination of Kojima'424, Suzuki'667, Oyama'070, Hirai'471 and Suzuki'204 shows the image processing apparatus, wherein in a case where the process condition designated by the designation means is a photo mode, the control means allocates a greater memory capacity of the memory means, or a greater processing time, or a greater memory capacity and a greater processing time to the color conversion process than to the other processes the photo mode (i.e., **depending on the process mode the processing is varied ((if it's a photo mode the process is different))**). See Column 27, Lines 64-67 and Column 28, Lines 1-6 in reference Suzuki'204).

Regarding **Claim 9 and 19**, the combination of Kojima'424, Suzuki'667, Oyama'070, Hirai'471 and Suzuki'204 shows the image processing apparatus wherein a case where the process condition designated by the designation means is a photo mode, the control means allocates a less memory capacity of the memory means, or a less processing time, or a less memory capacity and a less processing time to the discrimination process than to the other processes or the control means allocates neither a memory capacity of the memory means nor

a processing time to the discrimination process **(i.e., depending on the process mode the processing is varied. See Column 27, Lines 64-67 and Column 28, Lines 1-6 in reference Susuki'204).**

Regarding **Claims 10 and 20**, the combination of Kojima'424, Suzuki'667, Oyama'070, Hirai'471 and Susuki'204 shows the image processing apparatus wherein in a case where the process condition designated by the designation means is a character mode, the control means allocates a greater memory capacity of the memory means, or a greater processing time, or a greater memory capacity and a greater processing time to the a discrimination process in the image process than to the other processes **(i.e., depending on the process mode the processing is varied ((if it's a character mode the process is different)). See Column 27, Lines 64-67 and Column 28, Lines 1-6 in reference Susuki'204).**

Regarding **Claim 11**, the combination of Kojima'424, Suzuki'667, Oyama'070, Hirai'471 and Susuki'204 shows the image processing apparatus wherein in a case where the process condition designated by the designation means is a map mode, the control means allocates a greater memory capacity of the memory means, or a greater processing time, or a greater memory capacity and a greater processing time to the a filter process in the image process than to the other processes **(i.e., depending on the process mode the processing is varied ((if it's a map mode the process is different)). See Column 27, Lines 64-67 and Column 28, Lines 1-6 in reference Susuki'204).**



Regarding **Claim 13**, the combination of Kojima'424, Suzuki'667, Oyama'070, Hirai'471 and Susuki'204 shows the image processing apparatus wherein in a case where an additional process that is different from the individual processes is newly provided (**i.e., the number of processors can be changed/new. See Paragraphs 3 in reference Oyama'070**), the control means allocates a processing time to the individual processes and to the additional process at ratios determined for each in accordance with the process condition designated by the designation means (**i.e., depending on the process mode the processing is varied ((time can be varied))**). See Column 27, Lines 64-67 and Column 28, Lines 1-6).

#### ***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will

the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to IRIANA CRUZ whose telephone number is (571)270-3246. The examiner can normally be reached on Monday-Friday 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, King Y. Poon can be reached on (571) 272-7440. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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